



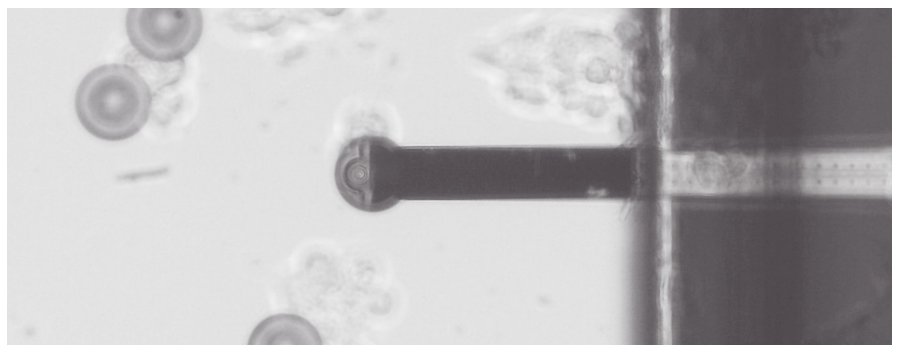
COLLOIDAL SPECTROSCOPY

Spherical colloids are the most suitable probes for local elasticity measurements on complex substrates. While colloidal probes are inherently difficult to produce and handle, FluidFM technology overcomes these limitations in order to give you unparalleled flexibility for your most demanding research requirements.

FluidFM® GIVES YOU THE EDGE.

Imagine renewing your AFM colloidal probe in-situ without having to completely replace the entire probe. FluidFM technology makes opting for a completely fresh probe inherently easy. The simple, yet universal approach enabled by FluidFM technology allows it to reversibly attach micro- and nanospheres to an atomic force cantilever in order to function as a colloidal probe.

Quantify long-term or irreversible interactions by using each colloidal probe only once. Fast, in-situ renewal of your probe is possible with FluidFM technology – at virtually no cost.



STRONG STATISTICS.

60 µm polystyrene colloids are used to quickly assess cell adhesion. Courtesy of Dörig P., ETH Zurich

Obtain solid statistics in short periods of time by measuring more data points than ever before. The versatility of FluidFM thereby allows you to use solid, liquid and gaseous colloids as required by your experiment.

THE PROCEDURE IN BRIEF.

The colloids are seized and reversibly attached to the FluidFM probe by applying an underpressure to the microfluidic channel. Once measurements with the attached colloid concludes, it can be easily detached from the probe by application of a short overpressure pulse.

SELECTED PUBLICATIONS

– 2016. N. Helfrich, E. Doblhofer, J.F.L. Duval, T. Scheibel & G. Papastavrou.

Colloidal Properties of Recombinant Spider Silk Protein Particles. The Journal of Physical Chemistry C, *acs.jpcc.6b03957*. doi:10.1021/acs.jpcc.6b03957

– 2013. P. Dörig, D. Ossola, A. M. Truong, M. Graf, F. Stauffer, J. Vörös & T. Zambelli.

Exchangeable colloidal AFM probes for the quantification of irreversible and long-term interactions. *Biophysical Journal*, *105*(2), 463–472. doi:10.1016/j.bpj.2013.06.002

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PROBES PER CANTILEVER

pN

FORCE RESOLUTION

> 1

PROBE PER MINUTE

sub µm

COLLOIDS

CONTACT US.

We offer complete support for our customers and distributors. Please visit the Cytosurge Help Center in order to access the FluidFM® user community. www.fluidfm.com

CYTOSURGE®

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